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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Vemuri B. Reddy et al. Art Unit 174
Serial No. : 548,228
Filed : November 2, 1983
For : HETEROPOLYMERIC PROTEIN

Commissioner of Patents and Trademarks
Washington, DC 20231

RECEIVED AUG 6 1984

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed are copies of the patents and publications listed on the attached Form-1449.

AA is discussed in the application at p. 1, lines 13-17. AR and AS are discussed in the application at p. 7, lines 7-12; AS is also discussed at p. 7, lines 32-33 and p. 8, lines 1-2. AR' is discussed in the application at p. 10, lines 25-27. AS' is discussed in the application at p. 11, lines 18-21. AT' is discussed in the application at p. 19, lines 18-19.

AR'' describes "a recombinant DNA composed of (1) bovine papilloma virus, (2) the promoter region of the mouse metallothionein I gene and (3) human growth hormone structural sequences ligated to the metallothionein promoter.... The recombinant...direct production of human growth hormone when introduced into cultured mammalian cells." AS'' is similar to AR''.

AT'' describes the "synthesis of alpha and beta TSH cDNA sequences and their cloning in a bacterial plasmid, pBR322."

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D. C. 20231, on July 24, 1984

Paul J. C[illegible]

AR''' describes "a process for producing a recombinant between simian virus 40 (SV40) and hepatitis B virus (HBV).... When tissue cells are infected with the recombinant, hepatitis B surface antigen is produced."

AL describes "methods and compositions for producing metallothioneins by recombinant DNA techniques."

AM describes "selected DNA sequences to which are ligated metal and/or steroid hormone-responsive promoter DNA sequences [e.g., the promoter/regulator sequence of the mouse metallothionein I or II genes].... These products may be incorporated into DNA plasmid and viral vectors...[to transform] recipient cells."

AR'''' describes "the development of vectors for use in eukaryotic cells...."

AS'''', AT'''', and AR''''' describe the amino acid sequences of the alpha and beta subunits of human chorionic gonadotropin.

AS''''' and AT''''' describe SV40 vectors that contain the HBsAg gene and are capable of transforming cultured mammalian cells.

AR''''''', AS''''''', and AT''''''' describe BPV vectors which express, respectively, rat preproinsulin, human beta-globin, and human beta-interferon when used to transform mammalian cells.

AR''''''' describes cloning the HBV gene into Escherischia coli and determining its nucleotide sequence.

AC describes "a method for isolating and identifying a recombinant clone having a DNA segment therein coding for a polypeptide at least a short amino acid sequence of which is known." The method produces "clones containing a plasmid incorporating DNA coding for histocompatibility antigens of the HLA-B region."

AD describes "a synthetic oligodeoxynucleotide complementary to glucagon mRNA and a method of using it to detect and isolate glucagon mRNA and cDNA from human and rabbit pancreas.... This glucagon cDNA can then be used...to produce additional glucagon by recombinant techniques." AE discloses a similar method for producing endorphin.

In addition, applicants submit a copy of Ochi et al. (1983) PNAS USA 80, 6351, which describes work in which "rearranged immunoglobin heavy ( ) and light ( ) chain genes cloned from the Sp6 hybridoma cell line producing immunoglobin M specific for the hapten 2,4,6-trinitrophenyl were inserted into the transfer vector pSV2-neo and introduced into various plasmacytoma and hybridoma cell lines. The transfer of and genes resulted in the production of pentameric, hapten-specific, functional IgM." The "results suggest that the transferred genes are tandemly integrated into the chromosomal DNA of the recipient cells." Ochi et al. is submitted only for completeness; it is not prior art as to this application, which was filed less than one year after the

publication date of Ochi et al., and which describes inventions made before the publication date of Ochi et al. Applicants will submit a declaration under 37 C.F.R. §1.132 if the Examiner so requires.

Respectfully submitted,

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